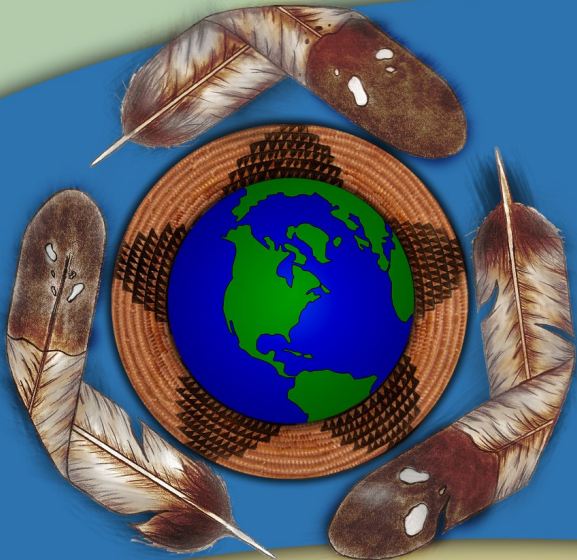


# Soboba Band of Luiseño Indians

Vol. 9 | Winter | 2012

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## *Cham Tema*

“Our Land”

### **Soboba Tribal Environmental Department**

The Soboba Band of Luiseño Indians' Tribal Environmental Department is committed to protecting, restoring, and enhancing natural resources on the Soboba Reservation for all Tribal Members: past, present, and future.



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# Climate Change

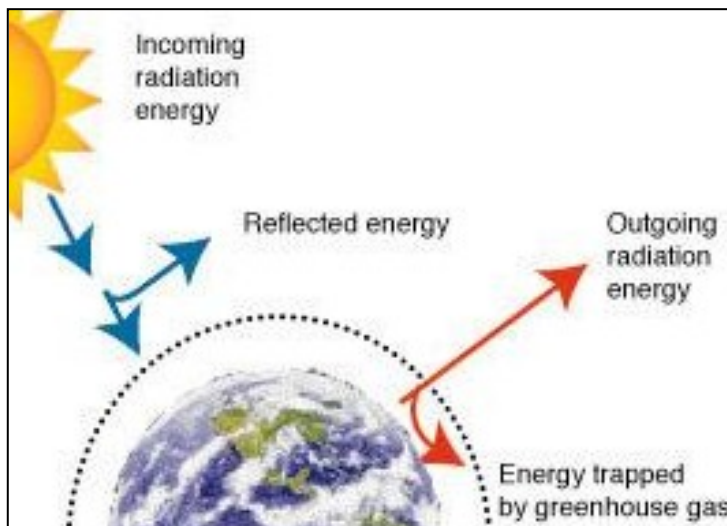
Climate change is the changing of long term weather patterns from historical norms. For over the past 200 years, the burning of fossil fuels, such as coal and oil, and deforestation have caused the concentrations of these heat-trapping GHGs to increase significantly in our atmosphere. These gases prevent heat from escaping to space, somewhat like the glass panels of a greenhouse. These gases are natural and are necessary to life as we know it, because they keep the planet's surface warmer than it otherwise would be. But the problem results from the concentrations of these gases continuing to increase in the atmosphere. According to NOAA and NASA data, the Earth's average surface temperature has increased by about 1.2 to 1.4°F in the last 100 years. Most of the warming in recent decades is very likely the result of human activities. Other aspects of the climate are also changing such as rainfall patterns, snow and ice cover, and sea level.

If greenhouse gases continue to increase, models predict that the average temperature at the Earth's surface could increase from 3.2 to 7.2°F above 1990 levels by the end of this century. Scientists are certain that human activities are changing the composition of the atmosphere, but they are not sure by how much it will change, at what rate it will change, or what the exact effects will be. Effects that have already occurred include sea level rise, shrinking glaciers, changes in the range and

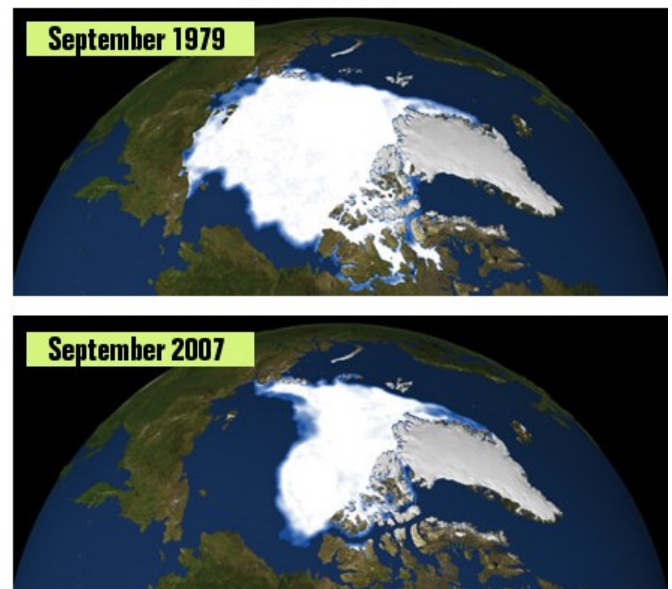
distribution of plants and animals, trees blooming earlier, lengthening of growing seasons, ice on rivers and lakes freezing later and breaking up earlier, and thawing of permafrost. Another key issue being studied is how societies and the Earth's environment will adapt to or cope with climate change. It remains very difficult to predict which parts of the country will become wetter or drier, but scientists generally expect increased precipitation and evaporation, and drier soil in the middle parts of the country. Northern regions such as Alaska are expected to experience the most warming.

Climate change not only changes the long term weather patterns, but it can also lead to a significant change in the weather areas experience day to day and seasonally. Climate change may be the cause of increasing “extreme” weather events such as tornadoes, hurricanes, and snow storms. Precipitation types and amounts will likely be different than in the past. Areas that tend to have little rain will become drier and drought will be more severe. Rainfall may occur at different times of the year or in large storms that make flooding a large concern. The amount of snow in mountains is likely to decrease which leads to less snowpack and water storage throughout the year. Stress may be put on food producers by changing where produce and grains grow best. This could result shortages of certain foods.

## The Greenhouse Effect



## Arctic Sea Ice







# Integrated Pest Management



Integrated pest management (IPM) is an effective and environmentally sensitive way to control pests that relies on a combination of common-sense practices. IPM uses information on the life cycles of pests and their interaction with the environment. This information is used to manage pest damage with the least possible hazard to people, property, and the environment.

Four steps of IPM:

## 1) Set Action Thresholds

Before taking any action, set an action threshold, at which pest populations or environmental conditions show one must be taken. Sighting a single pest does not always mean control is needed.

## 2) Monitor and Identify Pests

Not all insects, weeds, and other living organisms require control. Many organisms are harmless, and some are even beneficial. Pests should be identified accurately.

## 3) Prevention

As a first line of pest control, prevent pests from

becoming a threat. In agriculture or gardens, this may mean using methods such as rotating between different crops, selecting pest-resistant varieties, and planting pest-free seedlings.

## 4) Control

Once monitoring, identification, and action thresholds indicate that pest control is required, and preventive methods are no longer effective or available, IPM programs then evaluate the proper control method both for effectiveness and risk. Effective, less risky pest controls are chosen first, including highly targeted chemicals, such as pheromones to disrupt pest mating, or mechanical control, such as trapping or weeding. If further evaluation indicates that less risky controls are not working, then additional pest control methods would be used, such as targeted spraying of pesticides. Broad spraying of general pesticides is a last resort.

A good site to learn about pests and control methods in your home and garden can be found at <http://www.ipm.ucdavis.edu/index.html>

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## E-waste

E-waste is used to refer to electronic products nearing the end of their "useful life." Computers, televisions, VCRs, stereos, copiers, and fax machines are common electronic products. In the U.S., we generated an estimated 1.5 billion pounds of e-waste in 2006 alone. This includes about 44 million computers and televisions. Many of these products can be reused, repaired, or recycled. Unfortunately, electronic waste is one of the fastest growing segments of our nation's waste stream. Some portions of electronics can be hazardous, so e-waste must be carefully recycled. Cathode ray tube (CRT) television monitors contain, on average, 4 to 8 pounds of lead, a highly toxic heavy metal. Reusing electronics is usually a good option when you are finished with an item but it still works. Several organization will take donations of still working equipment. If the equipment isn't working, many retailers that sell electronic equipment, or companies that make it, will take back items for free or a small fee. Staples will take most electronics, whether you purchased them there or not.

<http://www.staples.com/sbd/cre/marketing/ecoeasy/recycling.html>

Earth 911 is a valuable resource you can use to find places to recycle specific products.

<http://earth911.com/>

The EPA has several links to find information about recycling electronics.

<http://epa.gov/epawaste/conservation/materials/recycling/index.htm>

California also has a website for e-waste information. <http://www.calrecycle.ca.gov/electronics/whatisewaste/> or call (916) 322-1895

Riverside County Waste Management can also help you find places to recycle electronics. <http://www.rivcowm.org/opencms/> or call (951) 486-3200





If you have any questions on information in the newsletter or any other environmental concerns contact:

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## Solid Waste Word Match

Match each word with the definition. The first one is done for you. The answers are at the bottom.

- ☒ 1. Paper
- ☐ 2. Motor Oil
- ☐ 3. Cellulose Insulation
- ☐ 4. Aluminum
- ☐ 5. Composting
- ☐ 6. Plastics
- ☐ 7. Natural Resources
- ☐ 8. Cullet
- ☐ 9. Animal Bedding
- ☐ 10. Landfills
- ☐ 11. Beverage Containers

- A. Recyclable, ground up glass
- B. Changes organic materials into soil-like mixture
- C. 30% of all landfill waste
- D. A use of shredded newspaper
- E. Recycling saves 95% of energy needed to process this
- F. Made from petroleum and natural gas
- G. One gallon can pollute 1 million gallons of water
- H. Some states have deposits on these and collect up to 90%
- I. Materials that can't be recycled go here
- J. If materials are not recycled, more of these are used
- K. A use of finely-ground newspaper

Answers:

1. C 2. G 3. K 4. E 5. B 6. F 7. J 8. A 9. D 10. I 11. H



## Be Prepared for an Earthquake

Southern California is known as earthquake country. Several fault lines cross through the area. The San Andreas fault may be the most famous in Southern California, but the San Jacinto Fault runs right through this area and the reservation. Although nobody can predict earthquakes, you can be prepared. The U.S. Geologic Survey, California Geologic Survey, and Southern California Earthquake Center put together a group to determine the probability of earthquakes magnitude 6.7 or greater in California. According to their models, there is a 97% probability for southern California. A magnitude 6 or greater earthquake can be destructive in areas over 62 miles from where the earthquake occurs.

### Steps to Earthquake Safety

- Identify potential hazards in your home and begin to fix them. Secure furniture and hanging items that could fall when shaking begins.
- Create a disaster preparedness plan. Identify safe spots in the house, practice taking cover,

and make communication/meeting plans for after an earthquake.

- Prepare disaster supply kits. Have water, food, first aid kit, cash and other supplies on hand. Have kits at home, work, and in your car.
- During an earthquake, "drop, cover, and hold on." Take cover under a sturdy desk or table, stay away from windows or objects that may fall, and if outside, move to a clear area if you can.
- After the earthquake, check for injuries and damage. If you are injured, take first aid measures. Remember the risk of aftershocks and get to a safe location if you are not in one already. Check for fires or gas leaks.
- After dealing with immediate danger, follow your disaster plan.

A good website for earthquake preparedness information can be found at <http://www.earthquakecountry.info/>